UTAH OIL AND GAS CONSERVATION COMMISSION REMARKS WELL LOG ELECTRIC LOGS WATER SANDS SUB. REPORT/abd. 3-19-87 DATE FILED U-49678 LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO INDIAN 3-23-87 DRILLING APPROVED SPUDDED IN COMPLETED: PUT TO PRODUCING INITIAL PRODUCTION GRAVITY A.P.I. GOR: PRODUCING ZONES: TOTAL DEPTH WELL ELEVATION: , DU BYM 11-21-89 DATE ABANDONED **UNDESIGNATED** FIELD: UNIT: SAN JUAN COUNTY: FEDERAL 1-87 API #43-037-31310 WELL NO. 2140' FNL 2140' FEL SW NE 28 LOCATION FT. FROM (N) (S) LINE, FT. FROM (E) (W) LINE 1/4 - 1/4 SEC. SEC OPERATOR TWP RGE RGE. TWP. SEC. **OPERATOR**

37Ş

24E

28

GREAT WESTERN DRILLING

Form 3160-3 (November 1983) (formerly 9-331C)

APPROVED BY _

CONDITIONS OF APPROVAL, IF ANY:



SUBMIT IN TR

(Other instructions on reverse side)

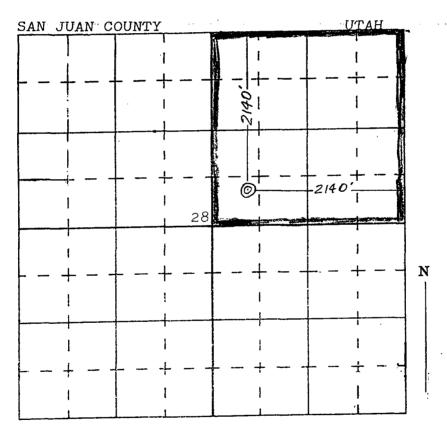
Form approved. Budget Bureau No. 1004-0136 Expires August 31, 1985

UNITED STATES DEPARTMENT OF THE INTERIOR

5. LEASE DESIGNATION AND SERIAL NO.

	BUREAU OF		U-49678		
APPLICATIO	N FOR PERMIT T	BACK	6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A		
1a. TYPE OF WORK	NLL 🖔	DEEPEN	PLUG BA		7. UNIT AGREEMENT NAME N/A
OIL X	AAS OTHER	SI	NGLE MULTIF	re	8. FARM OR LEASE NAME
2. NAME OF OPERATOR	WEDD CO OTHER	20			Federal
Great Wester	n Drilling Compa	iny PHONE.	(505) 327-0	494	9. WELL NO. 1-87
	St. Suite 238	Farmington, NA	4 87401		10. FIELD AND POOL, OR WILDCAT
	Report location clearly and		tate requirements.*)		-Wildeat UNDESIGNATED
	2140' FEL Secti	on 28, T37S., F	الا _ک R24E., SLM	NE	11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA
4			7		Sec. 28, T37S-R24E., SLM
	& 4 mile west of		:		12. COUNTY OR PARISH 13. STATE
5. DISTANCE FROM PROP	USED*		OF ACRES IN LEASE	17. NO.	San Juan Utah of acres assigned
LOCATION TO NEARES PROPERTY OR LEASE (Also to nearest dr)	IT LINE, FT.		640		HIS WELL 10
8. DISTANCE FROM PRO		19. PR	OPOSED DEPTH	- I	RY OR CABLE TOOLS
OR APPLIED FOR, ON TH	HIS LEASE, FT.		6150' ± WW	F	Rotary
21. ELEVATIONS (Show wh	nether DF, RT, GR, etc.)				22. APPROX. DATE WORK WILL START*
23.	5498' GR	ROPOSED CASING AND	CEMENTING PROGRA		ASAP
	 				
17½"	16" Conductor	WEIGHT PER FOOT	30 1	To	GUANTITY OF CEMENT
121/4	9÷5/8"	36#	2000'		sx ok Sufficient to cir to s
8-3/4"	512"	15.5 & 17#		350	sx of " to cover zones of erest.
Ismay and D well comple	rn Drilling Comp esert Creek form ted. If dry, th ah requirements.	ations. If pro e well will be	ductive, casing	g will	be run and the
0	PROVED BY THE F UTAH DIVISION IL, GAS, AND M	ON OF	R	EG.	19 1987 J
DATI	·) 3.23.87			,,,,,,,,	10100/
BY:/	of X. Day	0.0		DIVI	SION OF
WELI	L SPACING: 🜙	302	,	OIL, GA	S & MINING
N ABOVE SPACE DESCRIBIONE. If proposal is to reventer program, if an	drill or deepen directional	roposal is to deepen or p ly, give pertinent data o	lug back, give data on pin subsurface locations ar	nd measure	ductive zone and proposed new productive d and true vertical depths. Give blowout
-	eral or State/office use)				·
	3, 037-31 3 1	i a			
PERMIT NO.	1,001,0101	<i>-</i>	APPROVAL DATE		

COMPANY	GREAT	WES.	LEKN .	DRTL	LING	COME	ANY	
LEASE	FE	DERAI		w	ELL N	o.1 -	87	
sec28	, Т_	37 S	OUTH	, R	24 E <i>l</i>	AST.	SLM	
LOCATION	2140 2140	FEET FEET	FROM FROM	THE THE	NORT EAST	H LI	NE NE	and
		5/	498 U	ngra	ded (rour	nd.	



SCALE-4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Registered Land Surveyor.
James P. Leese
Utah Reg. # 1472

surveyed _____9 March

ONSHORE OIL & GAS ORDER NO. 1 Approval of Operations on Onshore Federal and Indian Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

1. The surface formation and estimated formation tops to be encountered are as follows:

Formation	Depth
Morrision	Surface
Navajo	980'
Wingate	1583'
Chinle	1823'
Shinarump	2518 '
Hermosa	4662'
Ismay	5724'
Hoverweep Shale	5929 '
Lower Ismay	5965'
Gothic Shale	6009 '
Desert Creek	6064 '
Akah	6129'
Salt	6137 '
T.D.	6150'

2. The estimated depths at which oil, gas, water or other mineral bearing zones are expected to be encountered are as follows:

Substance	Formation	Anticipated Depth
Oil/Gas	Ismay	5724 '
Oil/Gas	Desert Creek	6064 '

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth cased and cemented. All oil and gas shows will be tested to determine commercial potential.

 Pressure control equipment will consist of a 10", 3000# BOP. (See BOP Diagram attached.)

BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. The San Juan Resource Area will be notified 1 day before pressure testing.

4. a. Casing

"The proposed casing program is as follows:

Purpose Conductor	Depth 0-40'	Hole Size	O.D. 16#	Wt.	Grade	Type	New or Used
Surface Produc.	0-2000' 0-5400' 5400-TD	12-1/4" 8-3/4" 8-3/4"	9-5/6* 5-1/2* 5-1/2*		K~55 K~55 K~55	ST&C LT&C LT&C	New New New

b. Cement

The cementing program will be as follows:

Surface Type and Amount

0-2000° 560 sx Lite w/2% CaCl₂ and 1/4# Cellophane flake, followed by 200 sx

Class B w/2% CaCl₂ or sufficient to

circulate to surface.

Production Type and Amount

350 sx Class H w/6% fluid loss additive or sufficient to cover zones of

interest.

Anticipated cement tops will be reported as to depth, not the expected number of sacks. The San Juan Resource Area will be notified one day prior to running casing strings and cement.

- c. Auxiliary Equipment will be as follows:
 - 1. Kelly cock.
 - 2. Ploat above the bit.
 - 3. A sub with a full opening valve will be on the floor when the kelly is not in use.
 - 4. Monitoring of the system will be done visually.
- 5. Drilling fluid will be as follows:

Interval "	Mud Type	Mud Wt.	Visc.	<u>F/L</u>	PH
0-2000' 2000-5000' 5000-T.D.	Gel/Lime Gel/Lime Dispersed	8.4-8.6 8.4-8.6 9.0-11.0	28-35 28-35 35-50	N/C N/C 8-10cc	- 11.5

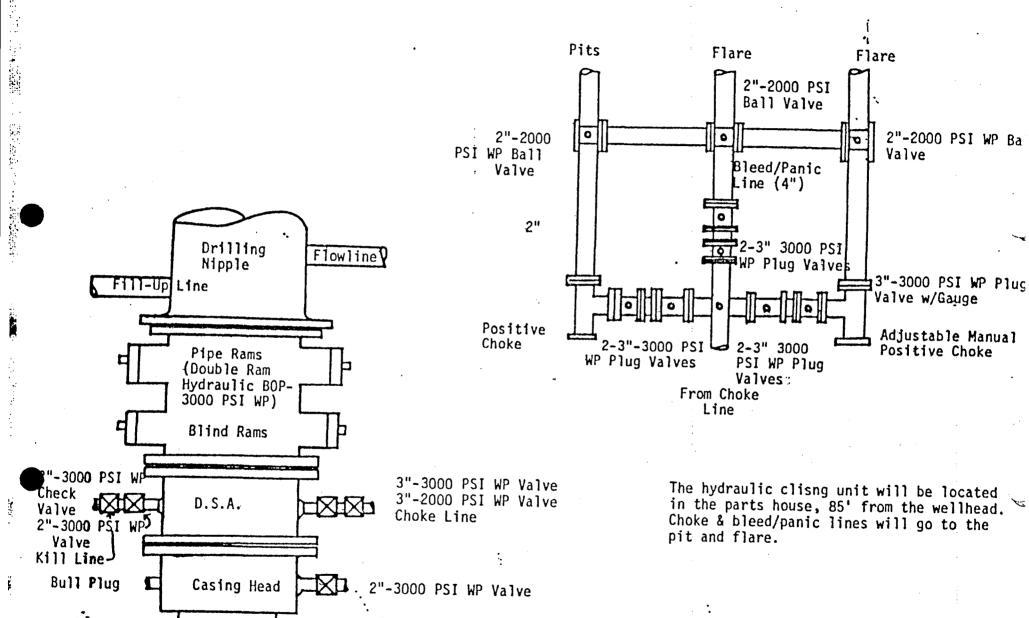
- 6. Coring, logging and testing programs are as follows:
 - a. No cores are anticipated.
 - b. The logging program will consist of the following: A Dual Induction or Dual Laterolog and BHC Sonic will be run from surface casing to T.D. A CNL Density will be run over zones of interest (minimum run) and a Dipmeter will be run (minimum run).
 - c. Drill Stem Tests will be run in the Ismay and Desert Creek formations if shows warrant.

Whether the well is completed as a dry hole or as a producer, "Well Completion or Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CPR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. If requested, samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.

- Abnormal conditions, bottom hole pressures and potential hazards.
 - a. The maximum bottom hole pressure to be expected is 3400 psi.
 - b. Great Western Drlg. Co. plans to spud the Federal 1-87 immediately upon approval of this application and intends to complete the well within approximately one month after the well has reached T.D.
 - c. The operator will contact the San Juan Resource Area at 801/587-2141, 48 hours prior to beginning any dirt work on this location.
 - d. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.
 - e. The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours of spudding, reporting the spud date and time. The Sundry will be sent to the District Manager. If spudding is on a weekend or holiday, the Sundry will be submitted on the following regular work day.

- f. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations", starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the Moab BIM District Office, P. O. Box 970, Moab, Utah 84532.
- g. <u>Immediate Report:</u> Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NIL-3A.
- h. If a replacement rig is planned for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergencies, verbal approval can be given by the District Petroleum Engineer.
- i. If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five business days following the date on which the well is placed on production.
- j. No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.
- k. Final abandonment will not be approved until surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or his representative, or the appropriate surface Manager.

- Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTI-4A.
- m. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on with a welding torch: Fed, Well number, location by 1/4 1/4 section, township and range, lease number.
- n. A first production conference will be scheduled within 15 days after receipt of the first production notice. The San Juan Area Manager will schedule the conference.
- o. The following may be inspected and/or witnessed:
 - The cementing and testing of surface casing, testing BOP's.
 - 2. (Dry Hole) Setting and testing of surface casing shoe plug.
 - (Depleted Producer) The setting and testing of plugs across producing horizon and if applicable the surface casing shoe plug and/or annulus (casing to formation) squeeze jobs.
- p. Notify the San Juan Resource area (Mike Wade) one day or (on a dry hole) as soon as possible prior to the above at (801) 587-2141 (W) or (801) 587-2026 (H). If unable to reach Mike, call Moab District Office Greg Noble at (801) 259-6111 (W) or (801) 259-8811 (H).



ONSHORE OIL & GAS ORDER NO. 1

Thirteen Point Surface Use Plan

1. Existing Roads

- a. The proposed well site is located 24 miles South East of Blanding, Utah.
- b. Directions to the location from Blanding are as follows:

 Take Highway #41 south out of Blanding, Utah, turn east at Rd. #262 to Hatch Trading Post. Turn north just past Hatch TP on existing dirt road and follow this road to flagged turn-off to Federal 1-87.

- c. The roads in the area are primarily county roads. See Maps #1 and #2.
- d. Improvement to the existing access will not be necessary.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. An encroachment permit will be obtained from the San Juan County Road Department, 801/587-2231, ext. 43.

2. Planned Access Roads

a. The last 2500 feet will be new access. The road will be flat bladed initially during construction and upgraded if production is established.

2. Planned Access Roads (cont.)

- b. The maximum total disturbed width will be 30 feet.
- c. The grade will be 10%.
- d. Turnouts will be installed as needed. No culverts will be needed at this time.
- e. Each fence which is crossed by the road will be braced as shown in Enclosure number 1, and tied off before cutting to prevent slackening of the wire. A gate or cattleguard which must be approved by BIM, will be installed.
 - f. If road construction cuts through natural topography which serves as a livestock barrier, a fence shall be constructed as shown in Enclusre 1.
 - g. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance by the San Juan Area Manager.
 - h. The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drilling rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.
 - i. The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossings; and culverts will be determined at the appropriate field inspection.

- 3. Location of Existing Wells Within a 1-Mile Radius of the Proposed Location. (See Map #3).
 - a. Water Wells none
 - b. Injection or disposal wells none
 - c. Producing Wells one (#1-20 waiting on completion)
 - d. Drilling Wells none
- 4. Location of Tank Batteries and Production Facilities.
 - a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be neutral to match the trees.
 - b. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.
 - c. A central tank Battery will be constructed at the Fed. 1-87 location if the well is a producer. A diagram will be submitted to the BLM office as required by the Site Security Program.
 - d. All loading lines will be placed inside the berm surrounding the tank battery.
 - e. Any necessary pits will be properly fenced to prevent any wildlife entry. The production pit will be flagged overhead.

4. <u>Production Facilities (cont.)</u>

- f. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- g. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
- h. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.
- i. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Moab District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from a private source.
- b. Water will be trucked to location over the county roads in the area.
- c. No water well is to be drilled on this lease.

5. Water Supply (cont.)

d. Use of water for this operation will be obtained from a private source.

6. Source of Construction Material

- a. Road surfacing material will be obtained from a commercial source. Pad construction material will be native.
- b. The use of materials under BIM jurisdiction will conform to 43 CPR 3610.2-3. Construction material will be located on lease.

7. Methods for Handling Waste Disposal

- a. The reserve pit will be lined with native clay or commercial bentonite sufficient to prevent seepage. At least half of the capacity will be in cut.
- b. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
- c. A trash pit will be constructed near the mud tanks and dug at least six feet into solid, undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free. If a trash cage is used, its contents will be hauled to an approved landfill.
- d. A burning permit is required for burning trash between May 1 and October 31. This will be obtained from the San Juan County Sheriff at (801) 587-2237 if operations should extend past May 1st.

7. Methods for Handling Waste Disposal (cont.)

e. Produced waste water will be confined to a lined pit for a period not to exceed 90 days after initial production. During the 90-day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

8. Ancillary Facilities

a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. See Diagram #1 for rig layout. See Diagram #2 for cross section of drill pad. See Diagram #3 for cuts and fills.
- b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities and soil stockpiles will be shown on Diagram #1 and #3. The location will be laid out and constructed as discussed during the predrill conference.
- c. The top 4-6 inches of soil material will be removed from the location and stockpiled separate from the trees on the south side of the location. Topsoil along the access will be reserved in place.
- d. Access to the well pad will be from the north.

10. Reclamation

a. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.

10. Reclamation of Surface (cont.)

- b. The operator or his contractor will contact the San Juan Resource Area office in Monticello, Utah (801/587-2141) 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.
- f. Water bars will be built as follows to control erosion.

2% Every 200 Feet	Grade	Spacing
4-5% Every 75 Peet	2-4% 4-5%	Every 200 Feet Every 100 Feet Every 75 Feet Every 50 Feet

- g. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.
 - 4 lbs/acre Galleta (Hilaria jamesii)
 - 6 lbs/acre Western wheatgrass (Agropyron smithii)
 - 2 lbs/acre Desert bitterbrush (Purshia glandulosa)
- h. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.

10. Reclamation of Surface (cont.)

i. The reserve pit and that portion of the location and access road not needed for production and production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. a. Surface Ownership

Federal

b. Mineral Ownership

Federal

12. Other Information

- a. There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.
- b. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
- c. The dirt contractor will be provided with an approved copy of the surface use plan.
- d. If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archeological sites will be done by a BIM approved archeologist only if damage occurs.

12. Other Information (cont.)

- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. An archeological study was conducted by: Barry Hibbetts, Dolores, CO.
- g. Your contact with the District Office is: Greg Nobel, 801/259-6111, P.O. Box 970, Moab, Utah 84532.

The Resource Area Manager's address is P.O. Box 7, Monticello, Utah 84532. Your contact is Richard McClure, 801/587-2141.

13. <u>Lessee's or Operator's Representative and Certification</u>

Permit Matters

Drilling & Completion Matters

Doyle Baxter, Great Western

Doyle Baxter, John Keeling

Certification

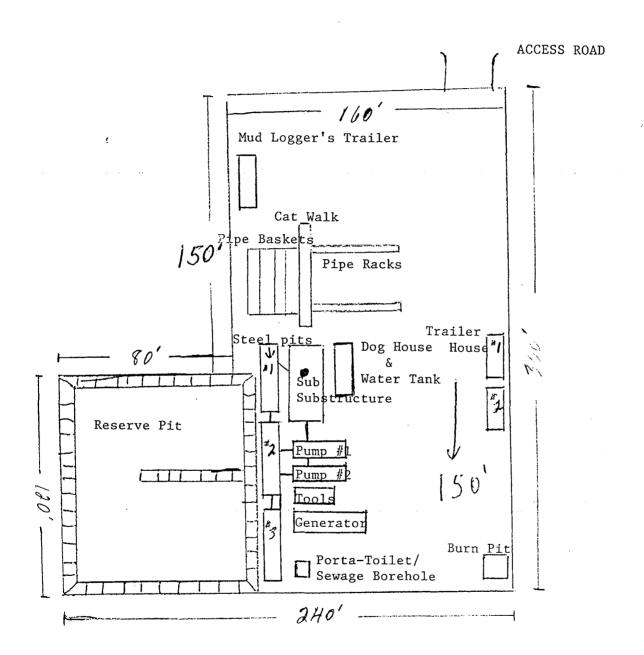
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Great Western Drlg. Co. and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

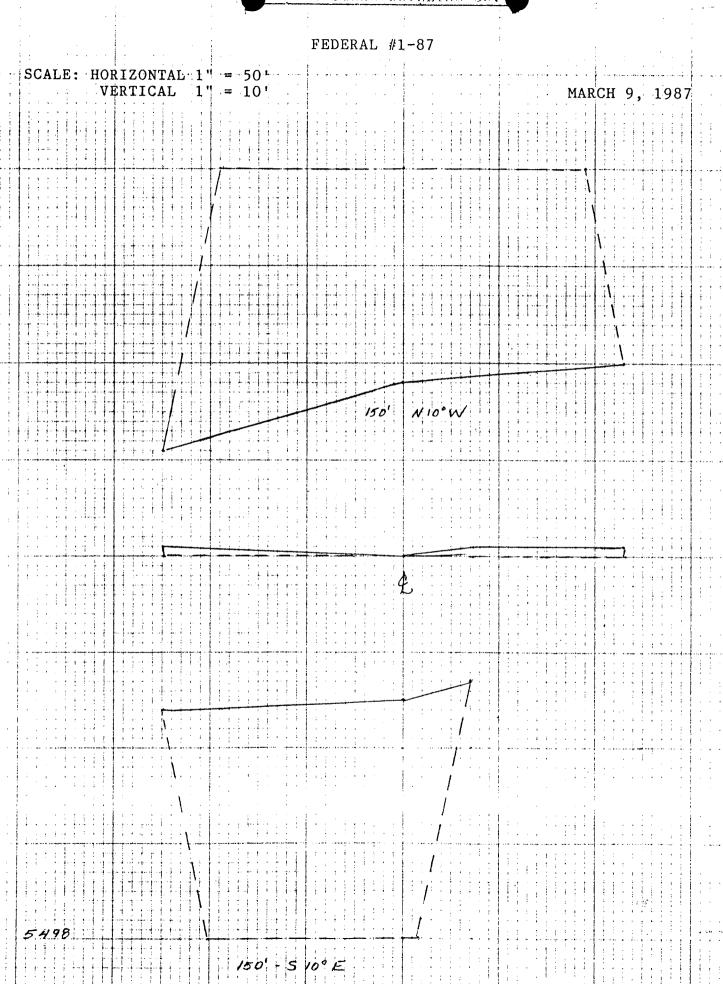
3-16-87 Date:

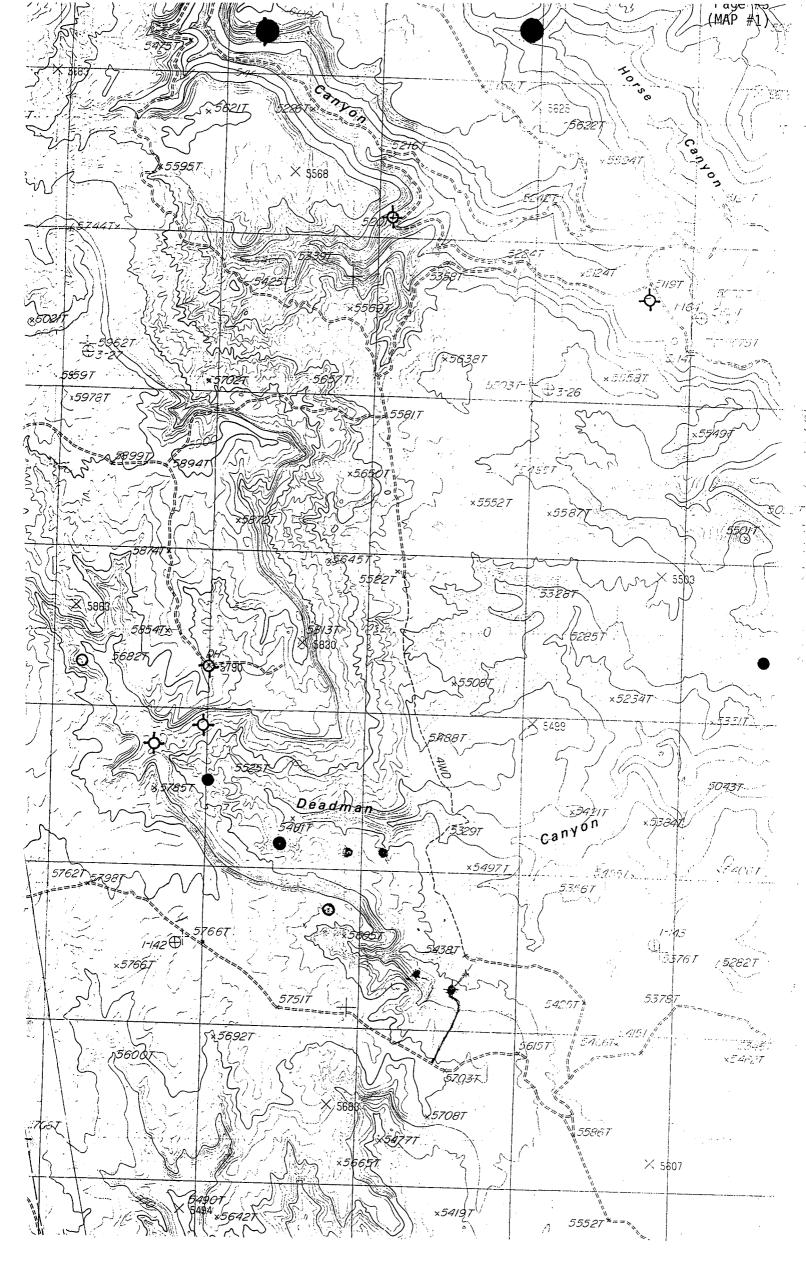
D. E. Carter

GREAT WESTERN DRILLING CO.
Federal #1-87
Propose 2140' FNL
2140' FEL
Sec. 28, T37S - R24E
San Juan County, Utah

Proposed Location







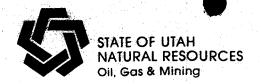
(MAP #1)

Great Western Drlg. Co. has a nationwide Drilling Bond thru Travelers Indemnity, P. O. Box 660452, Dallas, TX 75266-0452 in the amount of \$150,000.00.

Great Western Drlg. Co. is the lessee, therefore Designation of Operator is not necessary.

3-16-87 Date: D. E. Baytes

OPERATOR Great Western Un	DATE OF THE PARTY	3-20-87
WELL NAME Gederal 1-87	ung (08. DATE	
SEC SW NE 28 T 378 R 29	COUNTY	1. (0.)
1 2,2	000111	san gran
43 - 037 = 3/3/0 API NUMBER	Type of	LEASE
CHECK OFF:		
PLAT	BOND	NEAREST WELL
LEASE	FIELD	POTASH OR OIL SHALE
PROCESSING COMMENTS: 10 ather well within	920	
need water permit		
APPROVAL LETTER:		
SPACING: 203 UNIT		302
CAUSE NO. & DATE		302.1
STIPULATIONS: 1-Water		
	,	



355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

March 23, 1987

Great Western Drilling Company 3535 E. 30th Street, Suite 238 Farmington, New Mexico 87401

Gentlemen:

Re: Federal 1-87 - SW NE Sec. 28, T. 37S, R. 24E 2140' FNL, 2140' FEL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Rule 302, 0il and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

- Spudding notification to the Division within 24 hours after drilling operations commence.
- 2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
- 3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
- 4. Compliance with the requirements and regulations of Rule 311.3, Associated Gas Flaring, Oil and Gas Conservation General Rules.

Page 2 Great Western Drilling Company Federal 1-87 March 23, 1987

- 5. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable State and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
- 6. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31310.

Sincerely,

R. Firth

Associate Director, Oil & Gas

as

Enclosures

cc: Branch of Fluid Minerals

D. R. Nielson

8159T

Form 3160-3 (November 1983) (formerly 9-331C)

175"

8-3/4"

SUBMIT IN TRIFLICATE*

(Other instructions on reverse side)

Form approved. Budget Bureau No Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

760 sx ok Sufficient to cir to su

" to cover zones of

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT U-49678 6. IF INDIAN, ALLOTTER OR TRIBE NAME APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK N/A 1a. TYPE OF WORK 7. UNIT AGREEMENT NAME PLUG BACK DEEPEN [DRILL 🔼 N/A b. TYPE OF WELL SINGLE ZONE MULTIPLE ZONE 8. FARM OR LEASE NAME WELL X GAS WELL Federal 2. NAME OF OPERATOR 9. WELL NO. Great Western Drilling Company 1-87 3. ADDRESS OF OPERATOR 10. FIELD AND POOL, OR WILDCAT 3535 E. 30th St. Suite 238 Farmington, NM 87401 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface <u>Wildcat</u> 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 2140' FNL & 2140' FEL Section 28, T37S., R24E., SLM <u>Sec. 28, T37S-R24E.</u>, SLM 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 1 mile North & ¼ mile west of Hatch T.P. Sa<u>n Juan</u> Utah 17. NO. OF ACRES ASSIGNED TO THIS WELL 15. DISTANCE FROM PROPOSED* 16. NO. OF ACRES IN LEASE PROPERTY OR LEASE LINE, FT.
(Also to nearest drig, unit line, if any) 40 640 20. ROTARY OR CABLE TOOLS 18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 19. PROPOSED DEPTH 6150' ± Rotary 22. APPROX. DATE WORK WILL START* 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5498' GR ASAP PROPOSED CASING AND CEMENTING PROGRAM QUANTITY OF CEMENT SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH

30**'**

2000'

6150'

46#

36#

15.5 &

16" Conductor

9-5/8"



To Surface

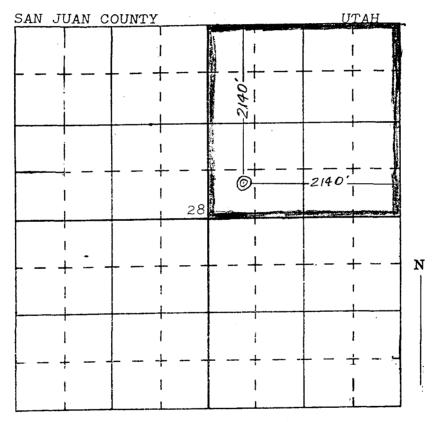
350 sx of interest.

DIVISION OF OIL. GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any $\overline{24}$. Supervisor (This space for Federal or State office use) APPROVED BY S JAMES J. CHOUN CONDITIONS OF APPROVAL, IF ANY WAYCE APPROVAL DATE PERMIT NO AS IS SUBJECT DE AIT, OF Actina IS SUBJECT OF NTL 4-A CONDITIONS OF APPROVAL ATTACHED *See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the STATE United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

COMPANY .	GREAT	WEST	rern	DRIL	LING	COMP	ANY	
LEASE	FE	DERAI		w	ELL N	o.1 - 8	87	
sec28	, т	37 SC	OUTH	, R	24 E <i>A</i>	ST,	SLM	
LOCATION	2140 2140	FEET FEET	FROM FROM	THE THE	NORT EAST	H LIN	NE E	and
ELEVATION	١	54	+98 U:	ngrad	ded C	roun	d.	



SCALE-4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Registered Land Surveyor.

James P. Leese

Utah Reg. # 1472

SURVEYED 9 March 19.87

P.O. Box 752,

FARMINGTON, N. M.

Great Western Drilling Company Well No. Federal 1-87 Sec. 28, T. 37 S., R. 24 E. San Juan County, Utah Lease U-49678

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

B. SURFACE USE PLAN

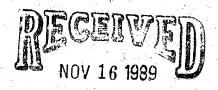
The two archaeological sites adjacent to the well pad (42SA17058 and 42SA18243) will be fenced prior to construction to ensure protection of these cultural resources.

(November 1983) (Formerly 9–331) UNIFED STATES DEPARTMEN OF THE II	Expires August 31 1085
BUREAU OF LAND MANAG	EMENT
SUNDRY NOTICES AND REPO (Do not use this form for proposals to drill or to deepen of the deepen of	RTC ON WELLS 6. IF INDIAN, ALLOTTEE OR TRIPE NAME
OIL X GAS OTHER	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR	
Great Western Drilling Co. Phone 3. ADDRESS OF OPERATOR	#(505) 327-0494 8. FARM OR LEASE NAME Federal 9. WELL NO.
3535 East 30th St. Suite 242 Farmington,	NR 07/01
4. LOCATION OF WELL (Report location clearly and in accordance we have also space 17 below.) At surface	ith any State of the control of the
2140' FNL & 2140' FEL SW/N	OCT (6 1988 SEC., T., B., M., OR BLE, AND
T-37S, R-24E SLM 14. PERMIT NO. 15. ELEVATIONS (Show wh	ether DF, RT, GR, etc.) DIVISION OF SEC. 28 T-37S, R-24E 12. COUNTY OR PARISH 13. STATE
API # 43-037-31310 5498 GR	VIL. UAS & MINING
	San Juan - Utah
NOTICE OF INTENTION TO:	ate Nature of Notice, Report, or Other Data
TEOT TO THE	SUBSEQUENT REPORT OF:
PULL OR ALTER CASING FRACTURE TREAT MULTIPLE COMPLETE	WATER SHUT-OFF REPAIRING WELL
SHOOT OR ACIDIZE ABANDON*	FRACTURE TREATMENT ALTERING CASING SHOOTING OR ACIDIZING ARANDONYESSES
REPAIR WELL CHANGE PLANS	(Other)
(Other) Extention APD permit X	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) Prtinent details, and give pertinent dates, including estimated date of starting any ellocations and measured and true vertical depths for all markers and zones perti-
this time we are asking for a 6 months on study our seismograph charts and record	extention of our approved APD permit, so we is some more.
	COPY
	Div. Superintendent DATE April 20, 1988
(This space for Federal or State office use) APPROVED BY Jambochson TIME B	Acting District Manager
CONDITIONS OF APPROVAL IF ANY:	DATE: 5/4/FR
	ACCEPTED BY THE STATE OF UTAH DIVISION OF
Aprove DHM 5/4/88 *See Instruction	
le 18 U.S.C. Section 1001, makes it a crime for any person ited States any false fictitions or fronting	ons on Reverse Side

LIDO TI

November 1983) Formerly 9–331) DEPARTMEN	F THE INTERIOR	(Other instructions verse side)	5. L	EASE DESIGNATION AND SERIAL
	ND MANAGEMENT		l u	-49678
		WELLC	6. т	F INDIAN, ALLOTTEE OR TRIBE N.
SUNDRY NOTICES AN (Do not use this form for proposals to drill Use "APPLICATION FOR	or to deepen or plug back permit—" for such propose	YELLS to a different reservoir als.)		
	· · · · · · · · · · · · · · · · · · ·		7. t	NIT AGREEMENT NAME
OIL GAS OTHER				
2. NAME OF OPERATOR			8. 1	ARM OR LEASE NAME
Great Western Drilling Co. 3. ADDRESS OF OPERATOR	Phone # (505)	327-0494	9. v	Federal TRUE NO.
3535 East 30th St. Suite	242 Farmingt		511	1-87 FIELD AND POOL, OR WILDCAT
4. LOCATION OF WELL (Report location clearly and in See also space 17 below.)	n accordance with any		5111	_
At surface		MAY () / 1000	11.	Undesignated SEC., T., B., W., OR BLK. AND
01/01 EEI	SW/NE	NOV 04 1988	· —	SURVEY OR ARMA
2140' FNL & 2140' FEL	2M/ME	מועומומנו מפ	Co	28, T-37S, R-24E
T-37S, R-24E SLM 14. PERMIT NO. 15. ELEVA	TIONS (Show whether DF, RT,	DIVISION OF	Sec. 12.	COUNTY OR PARISH 13. STATE
14. PERMIT NO.	5498 GR	UIL, GAS & WIININ	G	San Juan Utah
API # 43-037-31310		/ N1 D		
	Box To Indicate Natu	re of Notice, Kepo		
NOTICE OF INTENTION TO:			SUBSEQUENT	
TEST WATER SHUT-OFF PULL OR ALT	TER CASING	WATER SHUT-OFF		REPAIRING WELL
FRACTURE TREAT MULTIPLE CO	OMPLETE	FRACTURE TREATME!	NT	ALTERING CASING
SHOOT OR ACIDIZE ABANDON*		SHOOTING OR ACIDIZ	ING	ABANDONMENT*
REPAIR WELL CHANGE PLA	NS	(Other)	t regulte of m	ultiple completion on Well
(Other) Extention APD permit	X	Completion or	Recompletion	Report and Log form.)
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Cl proposed work. If well is directionally drilled nend to this work.) *	learly state all pertinent de d, give subsurface locations	and measured and tru	e vertical der	ths for all markers and zones
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (CI proposed work. If well is directionally drilled	rro rrould like a	2nd 6 months	extentio	n of our approved
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Cl proposed work. If well is directionally drilled nend to this work.)* Do to present conditions, The permit to have better weather	we would like a for the drilling	2nd 6 months g operations,	extentionalso to	n of our approved let the unit
Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.)	we would like a for the drilling	2nd 6 months	extentionalso to	n of our approved let the unit
Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) 18. I hereby certify that the foregoing is true and signed. (This space for Federal or State office use)	we would like a for the drilling	2nd 6 months g operations,	extentionalso to	n of our approved let the unit DATE October 19,
Do to present conditions, Do to present conditions, Describe proposed work. If well is directionally drilled nent to have better weather reement be settled. 18. I hereby contact that he torgoing is true and signed. (This space for Federal or State office use) APPROVED BY /s/Kenneth V. Rhes.	we would like a for the drilling	2nd 6 months g operations,	extention also to	n of our approved let the unit DATE October 19,
Do to present conditions, Describe proposed work. If well is directionally drilled new to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled new to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled new to this work.) 18. I hereby continue that he foregoing is true and signed. (This space for Federal or State office use)	we would like a for the drilling	2nd 6 months g operations,	extention also to	n of our approved let the unit DATE October 19,
Do to present conditions, Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) Do to present conditions, Describe proposed work. If well is directionally drilled nend to this work.) 18. I hereby certify that the torgoing is true and signed (This space for Federal or State office use) Approved by /s/Kenneth / Rhes	we would like a for the drilling	2nd 6 months g operations,	extention also to	DATE October 19, NOV 0 1 193 DATE
Do to present conditions, Do to present conditions, Describe proposed work. If well is directionally drilled nent to have better weather reement be settled. 18. I hereby contact that he torgoing is true and signed. (This space for Federal or State office use) APPROVED BY /s/Kenneth V. Rhes.	we would like a for the drilling	2nd 6 months g operations, Superintendent DISTRICT MA	extentionalso to	n of our approved let the unit DATE October 19,

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to united States any false, fictitious or fraudulent statements or representations as to asymmetry with EOF UTAH - DOGM. STATE OF UTAH-DOGM.



Moab District P. O. Box 970 Moab, Utah 84532

DIVISION OF OIL GAS & MINING

NOV 1 4 1989

Great Western Drilling Company 3535 E. 30th Street, Suite 238 Farmington, New Mexico 87401

Re: Rescinding Application for Permit to Drill Well No. Federal 1-87 SWNE Sec. 28, T. 37 S., R. 24 E. San Juan County, Utah U-49678

Gentlemen:

The Application for Permit to Drill the referenced well was approved on April 3, 1987. Since that date, no known activity has transpired.

This approval was valid for a period of one year from the date of approval. In view of the foregoing, this office is rescinding the approval of the referenced application.

Should you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

If you have any questions, please contact the Branch of Fluid Minerals at (801) 259-6111.

Sincerely yours,

13/ WILLIAM C. STRINGER

District Manager

Enclosure:
Application for Permit to Drill

ACTING

cc: SURA (w/o encl.)

State of Utah, Division of U11, Gas & Mining (w/encl.)

544

bcc: USO, U-942 (w/o encl.)

VButts: vb: 11/13/89

Form 3160-3 (November 1983) nerly 9-331C)

23.

TED STATES

SUBMIT IN TR (Other instructions on reverse side)

rorm approved.	
Budget Bureau No.	1004-0136
Expires August 31,	1985

DEPARTMENT OF THE INTERIOR			5. LEASE DESIGNATION AND SERIAL NO.			
BUREAU OF LAND MANAG	U -4 9678					
-	6. IF INDIAN, ALLOTTEE OR TRIBE NAME					
APPLICATION FOR PERMIT TO DRILL, D	PELFEIN, OR 1 EOG BI	-	N/A			
DRILL TYPE OF WORK DRILL TYPE OF WORK	7 TPILLIG-BAG		7. UNIT AGREEMENT NA	ME		
DRILL CO DELICIA C						
OIL GAS WELL OTHER	SINGLE ZONE ZONE		S. FARM OR LEASE NAM	2		
2. NAME OF OPERATOR			federal			
Great Western Drilling Company NOV 16 1939			9. With No.			
3. ADDRESS OF OPERATOR						
3535 F. 30th St. Suite 238 Farmington, NM 87401 UN SON OF 10. FIELD AND POOL, OR WILDCAT						
4. LOCATION OF WELL (Report location clearly and in accordance wit	h any State requirements. * 145 &	MINIMS	Wildcat			
At surface 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA						
2140' FNI & 2140' FEL Section 28, T37	S., R24E., SLM					
APT # 43.037.31310 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE.			Sec. 28, T	37S-R24E.,	SLM	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE			12. COUNTY OR PARISH			
1 mile North & ¼ mile west of Hatch T.	Ρ.		San Juan	<u>Utah</u>		
15. DISTANCE FROM PROPOSED			D. OF ACRES ASSIGNED D THIS WELL			
PROPERTY OR LEASE LINE, FT.	640	4	40		_	
		COTARY OR CABLE TOOLS				
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	6150' ±	R	Rotary		• .	
21. ELEVATIONS (Show whether DF, RT, GR, etc.)			22. APPROX. DATE WO	RK WILL START*		
5498 GR			ASAP		_	

QUANTITY OF CEMENT SETTING DEPTH WEIGHT PER FOOT SIZE OF CASING SIZE OF HOLE 30' 46# 175" 16" Conductor 760 sx ok Sufficient to cir to sur 2000' 9-5/8" 36# " to cover zones of 6150' 350 sx of

PROPOSED CASING AND CEMENTING PROGRAM

Great Western Drilling Company proposes to drill a well to 6150' ± to test the Ismay and Desert Creek formations. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

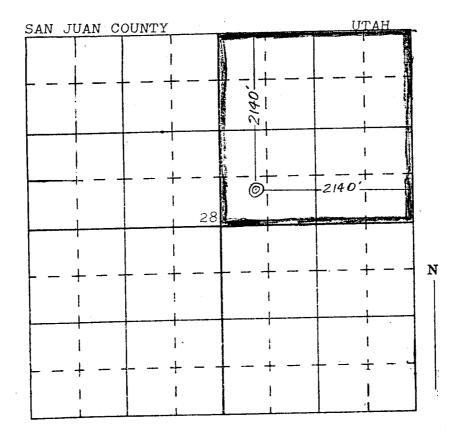
IN ABOVE SPACE DESCRIBE PROFOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout 24.

venter program, if any.			
SIGNED. E. DAY	fter	TITLE DIST Supervisor	DATE 3-16-87
(This space for Federal or State off	ice use)		
PERMIT NO.		APPROVAL DATE	
APPROVED BY James A.	Arravin _	TITLE ACTINDDIST MANAGER	DATE 4/3/87
CONDITIONS OF APPROVAL, IF ANY:			GAS IS SUBJECT OF NTI
TOT TO MOUNT OF !!	CONDITIONS	OF APPROVAL ATTACHED	DATED 1/1/2

NOV 16 1939

DIVISION OF OIL, GAS & MINING

COMPANY	GREAT	WESTERN	DRILLING	COMPANY
LEASE	FEI	DERAL	WELL N	io.1 - 87
sec28	, T	37 SOUTH	, _R 24 E	AST, SLM
LOCATION	2140 I	FEET FROI FEET FROI	M THE NOR	TH LINE and T LINE
ELEVATIO	N	5498	Ungraded	Ground.



SCALE-4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Registered Land Surveyor.

James P. Leese

Utah Reg. # 1472

P.O. Box 752,

FARMINGTON, N. M.



Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

Book Solt Lake City,
801-538-5340

355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340

November 21, 1989

Great Western Drilling Company 3535 East 30th Street, Suite 238 Farmington, New Mexico 87401

Gentlemen:

Re: Federal 1-87,Sec. 28, T. 37S, R. 24E, San Juan County, Utah

API No. 43-037-31310

In concert with action taken by the U.S. Bureau of Land Management, approval to drill the above referenced well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

Don T. Staley

Administrative Supervisor

TAS/Idc

CC:

D.R. Nielson

R.J. Firth

BLM - Moab

Well file

HOI2/10